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CALCULATION OF DISTANCE BETWEEN DRAINS IN MULTILAYER (INHOMOGENEOUS) GROUND IN PERMANENT FLOW REGIME

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Abstract

There is no analytical method for calculating the distance between drains placed in multilayer (heterogeneous) ground operating in permanent flow regime in the literature. The calculation method proposed in the paper, for this situation, is based on the equation elaborated by Ernst for a bilayer ground with drains whose centers are on the borderline between hydrogeological layers. The paper presents the calculation model, the equation specific to the situation and the considerations on all of the equation terms. Everything is based on calculation techniques already proven in underground hydraulics and drainage theory. This paper presents an example which details all the elements that are considered when calculating the distance between drains placed in multilayer ground for a better understanding of the proposed technique. The proposed method is simple to apply but it requires careful and thorough hydrogeological studies.

Key words: drainage, distance between drains, hydraulic conductivity

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